

Delaware River Basin Commission

25 State Police Drive
PO Box 7360
West Trenton, New Jersey
08628-0360
Phone: (609) 883-9500 Fax: (609) 883-9522
Web Site: <http://www.drbc.net>

Steven J. Tambini, P.E.
Executive Director

December 30, 2014

Ms. Kathleen M. Blinebury
Grants Management Officer
Grants & Audits Management Branch (3PM70)
U.S. Environmental Protection Agency
1650 Arch Street
Philadelphia, PA 19103-2029

SUBJECT: Revised 3-Year Grant Application – Amendment #2
Section 106 Application for Grant Period January 1, 2014 - December 31, 2016
covering Calendar Year (CY) 2015

Dear Ms. Blinebury:

Included within is a revised application for Section 106 funding in the amount of **\$709,000** for Calendar Year 2015 running from January 1, 2015 through December 31, 2015. The application includes base funding as well as discretionary funds and initiatives.

Specifically, this application includes the following funding:

- FFY 2015 base funding of **\$622,000**
- FFY 2015 Monitoring Initiative (Atlantic Sturgeon study) of **\$32,000**
- Discretionary funds for Implementation of Delaware River Basin Nutrient Strategy of **\$55,000**

Thank you for your consideration of this application. Questions can be directed to Ken Najjar at 609-883-9500, extension 256.

Sincerely,

A handwritten signature in black ink, appearing to read 'St. Tambini', is written over a large, faint, circular watermark or seal in the background.

Steven J. Tambini, P.E.
Executive Director

Enclosures

Ms. Kathleen M. Blinebury
U.S. Environmental Protection Agency
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Copies w/enclosures to:

Bryan Ashby, DNREC
Daniel Kennedy, NJ DEP
Angus Eaton, NY DEC
Mark Klotz, NY DEC
Kelly Jean Heffner, PA DEP
Lt. Col. Michael Bliss, US ACE

Suzanne Trevena, US EPA III
Patricia Iraci, US EPA III
Kimberly Scharl, US EPA III
Jon Capacasa, US EPA III

Geoffrey A. Reese, Lehigh Valley Planning Commission

Pamela M. Bush, Esq., DRBC
Thomas J. Fikslin, DRBC
William J. Muszynski, DRBC
Richard C. Gore, DRBC
Kenneth F. Najjar, DRBC
Kenneth Warren, Esq., DRBC

DELAWARE RIVER BASIN COMMISSION

A Project to Control Water Pollution

in the

Delaware River Basin

January 1, 2015 to December 31, 2015

(An application for \$709,000 in funding for the above time period from
EPA under Section 106 of the Clean Water Act)

December 2014

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DISCRETIONARY NUTRIENT WORKPLAN – NARRATIVE

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Application for Federal Assistance SF-424

* 1. Type of Submission:

- ☐ Preapplication
☒ Application
☐ Changed/Corrected Application

* 2. Type of Application:

- ☐ New
☐ Continuation
☒ Revision

* If Revision, select appropriate letter(s):

A

* Other (Specify)

* 3. Date Received:

4. Applicant Identifier:

5a. Federal Entity Identifier:

* 5b. Federal Award Identifier:

State Use Only:

6. Date Received by State:

7. State Application Identifier:

8. APPLICANT INFORMATION:

* a. Legal Name:

Delaware River Basin Commission

* b. Employer/Taxpayer Identification Number (EIN/TIN):

23-1605892

* c. Organizational DUNS:

069046779

d. Address:

* Street1:

25 State Police Drive

Street2:

P.O. Box 7360

* City:

West Trenton

County:

Mercer

* State:

New Jersey

Province:

* Country:

USA: UNITED STATES

* Zip / Postal Code:

08628

e. Organizational Unit:

Department Name:

Modeling, Monitoring & Assessment Branch

Division Name:

f. Name and contact information of person to be contacted on matters involving this application:

Prefix:

Dr.

* First Name:

Kenneth

Middle Name:

F.

* Last Name:

Najjar

Suffix:

P.E.

Title: Branch Manager, Planning & Information Technology

Organizational Affiliation:

* Telephone Number:

609-883-9500 Ext. 256

Fax Number:

609-883-9522

* Email: kenneth.najjar@drbc.state.nj.us

Application for Federal Assistance SF-424

9. Type of Applicant 1: Select Applicant Type:

E. Regional Organization

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

* Other (specify):

*** 10. Name of Federal Agency:**

U.S. Environmental Protection Agency, Region III, Philadelphia, PA

11. Catalog of Federal Domestic Assistance Number:

66-419

CFDA Title:

Water Pollution Control - State and Interstate Grants

*** 12. Funding Opportunity Number:**

EPA-R3-001

* Title:

Non Competitive Announcement

13. Competition Identification Number:

Title:

14. Areas Affected by Project (Cities, Counties, States, etc.):

DE, PA, NJ, NY

Philadelphia, PA

Wilmington, DE

Camden, NJ

Port Jervis, NY

*** 15. Descriptive Title of Applicant's Project:**

A Project to Control Water Pollution in the Delaware River Basin

Attach supporting documents as specified in agency instructions.

Application for Federal Assistance SF-424

16. Congressional Districts Of: Delaware - at Large; New Jersey 1, 2, 4, 5, 8, 11, 12, 13

* a. Applicant

(See below for addt'l)

* b. Program/Project

Attach an additional list of Program/Project Congressional Districts if needed.

Pennsylvania 1, 2, 3, 5, 6, 7, 8, 10, 11, 13, 15, 16;
New York 22, 24, 25, 28, 29

17. Proposed Project:

* a. Start Date: 01/01/2014

* b. End Date: 12/31/2016

18. Estimated Funding (\$):

* a. Federal \$1,714,530.00

* b. Applicant \$725,080.00

* c. State

* d. Local

* e. Other

* f. Program Income

* g. TOTAL \$2,439,610.00

* 19. Is Application Subject to Review By State Under Executive Order 12372 Process?

☒ a. This application was made available to the State under the Executive Order 12372 Process for review on

11/17/09

☐ b. Program is subject to E.O. 12372 but has not been selected by the State for review.☐ c. Program is not covered by E.O. 12372.

* 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes", provide explanation.) Applicant Federal Debt Delinquency Explanation

☐ Yes☒ No

21. *By signing this application, I certify (1) to the statements contained in the list of certifications** and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 218, Section 1001)

☒ ** I AGREE

** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

Authorized Representative:

Prefix:

* First Name: Steven

Middle Name: J.

* Last Name: Tambini

Suffix: P.E.

* Title: Executive Director

* Telephone Number: 609-883-9500 x-200

Fax Number: 609-883-9522

* Email: Steve.Tambini@drbc.state.nj.us

* Signature of Authorized Representative:

* Date Signed:

12/30/2014

Application for Federal Assistance SF-424

*** Applicant Federal Debt Delinquency Explanation**

The following field should contain an explanation if the Applicant organization is delinquent on any Federal Debt. Maximum number of characters that can be entered is 4,000. Try and avoid extra spaces and carriage returns to maximize the availability of space.

SECTION A - BUDGET SUMMARY

Amendment #2- December 2014
Standard Form 424A (Rev. 7-97)
Prescribed by OMB Circular A-102

SECTION D - FORECASTED CASH NEEDS						
	1st Q. CY2015	2nd Q. CY2015	3rd Q. CY2015	4th Q. CY2015		TOTALS
16 Federal		\$41,800.00	\$12,700.00	\$41,800.00		706,000.00
17 Non-Federal		72,508.00	108,762.00	72,508.00		362,540.00
18 TOTAL (sum of lines 15 and 16)		\$214,308.00	\$321,462.00	\$214,308.00		1,071,540.00

SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT				
(a) Grant Program	FUTURE FUNDING PERIODS (Years)			
	(b) First	(c) Second	(d) Third	(e) Fourth
19	\$	\$	\$	\$
20				
21				
22				
23 TOTAL (sum of lines 17-20)	\$0.00	\$0.00	\$0.00	\$0.00

SECTION F - OTHER BUDGET INFORMATION	
24 Direct Charges:	\$ 2,064,930.00
25 Indirect Charges:	\$ 375,077.00
26 Remarks:	

Workplan for Use of Section 106 Monitoring Initiative FY 2015 Funds**Part A. Implementation of Monitoring Strategies**

Please identify how your State plans to use the FY 14 Monitoring Initiative Strategy Implementation funds. It is important to keep in mind that these funds should be used for new, expanded or enhanced monitoring activities that will build upon the State's base monitoring programs as described in the State's Monitoring Strategy. In addition to the table below, States must submit a 1-2 page narrative workplan that describes in more detail the tasks listed including how the activity links to the State's monitoring strategy in terms of which gap, deficiency, timeline element, etc. is being addressed.

Some examples of program enhancement include:

- Adoption of statistically valid monitoring designs and assessment methodologies to expand coverage of waters and assessments
- Migration to Water Quality Exchange for data sharing and uploading of ambient monitoring data to national STORET warehouse
- Expansion of the use and rigor of biological monitoring and the development of improved assessment, stressor identification, and reporting tools
- Development of new tools such as predictive technology and remote sensing to refine applications of monitoring data

Task/Description of Activity	Products and/or Deliverables (outputs)	Environmental Outcomes (related to EPA Strategic Plan)	Expected Cost	Planned Completion Date	Identify how this task links to Monitoring Strategy (which gap, weakness, timeline element does this task address?)	National Database e.g., STORET, ATTAINS, other	Additional Information
Assessing the Effects of Low Dissolved Oxygen Levels and PCBs on the Early Life Stages of the Atlantic Sturgeon – Phase 2	This study will provide data on the effects of low dissolved oxygen and PCBs both individually and in combination. The data will be used in establishing appropriate criteria for the Delaware Estuary for dissolved oxygen that will be protective of the early life stages of the Atlantic sturgeon, an endangered species. The criterion will be used as part of the Commission's Nutrient Criteria Plan to determine allocations for carbonaceous and nitrogenous oxygen-demanding pollutants.	Assessment of the impairment of the updated designated use and associated water quality criteria for dissolved oxygen will ensure that the aquatic life use of the Delaware Estuary is supported including the protection of the endangered Atlantic sturgeon. This work corresponds to EPA Strategic Plan Goal 2: Protecting America's Waters.	\$32,000	12/31/2015		Other (Report with experimental results and findings)	

No

State currently has and will continue to implement state-scale statistical surveys - Y/N. If no, please explain

Project Work Plan
CY 2015 Section 106 Monitoring Initiative (MI) Funds

1. Title of Project: Assessing the Effects of Low Dissolved Oxygen Levels and PCBs on the Early Life Stages of the Atlantic Sturgeon – Phase 2

2. Organization: Delaware River Basin Commission
P.O. Box 7360
West Trenton, NJ 08628

Project Manager: Thomas J. Fikslin, Ph.D., Manager
Modeling, Monitoring & Assessment Branch
Phone: (609) 883-9500 x253
Fax: (609) 883-9522
Email: Thomas.Fikslin@drbc.state.nj.us

3. Project Purpose:

All populations of Atlantic sturgeon (*Acipenser oxyrinchus*) populations south of the Gulf of Maine were recently re-listed as “endangered” under the U.S. Endangered Species Act. The Delaware River population of Atlantic sturgeon is included with the Hudson River population in the same NY Bight Distinct Population Segment (DPS). While populations such as those in the Hudson River appear to be rebounding, the recovery of the Delaware River population appears to be hampered by environmental conditions in the Delaware River that are insufficient to support successful recruitment in most years. Breese et al (2013) reported that the Delaware River sustains less than 300 spawning adults annually, and that year-class production in most years is either very low or even below the level of detection.

The objectives of this project are to fill an information void for Atlantic sturgeon early life-stages by quantitatively describing the critical DO minimum, the sublethal responses to low DO, and the potential for interactions of DO with another known environmental stressor in the river, PCBs. It will complement studies sponsored by NOAA and the Hudson River Foundation on the effects of PCBs and climate change on early life-stage success of Atlantic sturgeon. This study will provide data on the effects of low dissolved oxygen and PCBs both individually and in combination. The data will be used in establishing appropriate criteria for the Delaware Estuary for dissolved oxygen that will be protective of the early life stages of the Atlantic sturgeon, an endangered species. The criterion will be used as part of the Commission's Nutrient Criteria Plan to determine allocations for carbonaceous and nitrogenous oxygen-demanding pollutants.

4. Project Tasks:

The project tasks will be conducted in two phases by two principal investigators (PIs) associated with NOAA and New York University with prior experience in testing Atlantic and shortnose sturgeon early life stages (Chambers et al, 2012). The two phases will test the following hypotheses: 1) the current DRBC water quality criterion in Zones 3, 4, and part of Zone 5 of a daily average dissolved oxygen (DO) of 3.5 mg/L places early life-stages of Atlantic sturgeon in the Delaware River at risk threatening successful survival and recruitment, and 2) co-exposure to the concurrent stressor, PCBs, increases this risk.

These investigators have been successful in past studies in defining the sensitivity of early life-stages of Atlantic sturgeon and shortnose sturgeon to one coplanar PCB congener (PCB126) and dioxin (TCDD). Their results demonstrated that both sturgeons are among the most sensitive of fishes investigated to date as quantified by altered gene expression (Roy et al. 2011), multiple teratogenic metrics, compromised eye development, and decreased survival when exposed to PCBs.

Fertilized eggs of Atlantic sturgeon will be obtained from ongoing research and commercial aquaculture operations that were used previously by the PIs. These include an aquaculture operation on the Saint John River, New Brunswick and a U.S. federal fish hatchery in South Carolina that has captive broodstock that were collected from the Altamaha River, Georgia. These two contrasting and distant sources should allow comparison of the response of offspring from two populations that experience significantly different environmental regimes in regards to ambient temperature and DO levels.

Phase 1 - Experiments will be conducted with DO and PCB exposures separately. DO levels will be achieved by nitrogen-base stripping of oxygen from experimental source water via varying controlled concentrations of nitrogen gas. Each DO concentration will be replicated three times. Maintenance of eggs and larvae will follow earlier published protocols (Chambers et al. 2012). Throughout these experiments, DO and temperature will be tailored to bracket environmental levels seen annually in the Delaware River at locales where spawning occurs as described in Kahn and Fisher (2012).

Phase 2 - Binary experiments will be conducted with varying levels of both DO and PCBs to determine the interaction of these pollutants. In these experiments, recently fertilized Atlantic sturgeon eggs will be exposed to multiple concentrations (up to 4) of an aqueous solution of the PCB mixture that elicited responses in Phase 1 and place these embryos in waters with multiple DO levels (up to 5). The four PCB concentrations will include two that caused early life-stage toxicities and two lower concentrations that did not. The choice of levels of DO will be based on the premise that we will use a range of treatment values that brackets the steepest gradient in the response variables. This design will be replicated twice.

5. Response Variables:

Variables of interest are lethal responses (mortality of embryos) and a variety of sublethal responses that the PIs have previously defined in Atlantic sturgeon (Chambers et al. 2012) and that are related to the likelihood of future survival of the young sturgeon in the Delaware River. The sublethal responses will include duration of embryonic period; size and shape of hatching larvae; eye development, condition, metabolic rate, activity, and resistance of young larvae to starvation.

6. Outputs and Deliverables:

The results of this project will empirically characterize the levels of DO that impair the viability and condition of early life-stages of Atlantic sturgeon in the Delaware River. It will quantify further effects that may arise due to a co-stressor (PCBs) acting in concert with low DO. The Delaware River Basin Commission (DRBC) is currently revisiting the designated uses and associated water quality criteria of Zones 3 through 5 to include the propagation of resident and anadromous fish. The results will offer quantitative guidance to establish criteria for DO that will permit the successful spawning and recruitment of the Delaware River Atlantic sturgeon.

The deliverables for this project will include a progress report on the results of the Phase 1 experiments including recommendations for the levels of DO and PCBs that will be tested in Phase 2. A final report will also be prepared with the results of both phases of the project. DRBC staff will utilize these data in preparing the options for water quality criteria for Zones 2 to 5 for consideration by the Commission's Water Quality Advisory Committee.

7. Schedule

A schedule for the project is presented in the following table.

	Jan 2015	Feb 2015	Mar 2015	Apr 2015	May 2015	Jun 2015	Jul 2015	Aug 2015	Sep 2015	Oct 2015	Nov 2015	Dec 2015
Equipment receipt and preparation	✓	✓										
Receipt of fertilized eggs			✓	✓	✓	✓		✓	✓			
Phase 1 experimentation				✓	✓	✓						
Phase 2 experimentation					✓	✓	✓		✓	✓		
Data analysis											✓	
Final Report Completion												✓

Note: Fertilized Atlantic sturgeon eggs are available in the spring from the New Brunswick, Canada facility and in the late summer from the Georgia fish hatchery.

8. Budget

The following budget is for the entire project. It is anticipated that the FY14 Monitoring Initiative Funds will be used to complete the Phase 1 experiments. Additional funding will be sought to complete the remainder of the project including the binary experiments.

Budget Category			Total
Contractor Costs – NYU and NOAA			
Phase 1 (CY 2014 MI Funds)			\$32,000
Phase 2 (CY 2015 MI Funds)			\$32,000
Total			\$64,000

9. References

- Breece, M.W., M.J. Oliver, M.A. Cimino, and D.A. Fox. 2013. Shifting distribution of adult Atlantic sturgeon amidst post-industrialization and future impacts in the Delaware River: a maximum entropy approach. *PLoS One* 8(11): es81321.
- Chambers, R.C., D.D. Davis, E.A. Habeck, N.K. Roy, and I. Wirgin. 2012. Toxic effects of PCB126 and TCDD on shortnose sturgeon and Atlantic sturgeon. *Environ. Toxicol. Chem.* 31:2324-2337.
- Kahn, D.M. and M. Fisher. 2012. Endangered Atlantic sturgeon in the Delaware River require higher standards for dissolved oxygen. Final report. Delaware Division of Fish and Wildlife, Dover, DE. 6 pp.
- Roy, N.K., N. Walker, R.C. Chambers, and I. Wirgin. 2011. Characterization and expression of cytochrome P4501A in Atlantic sturgeon and shortnose sturgeon experimentally exposed to TCDD and coplanar PCB 126. *Aquat. Toxicol.* 104:24-31.

**Nutrient Work Plan
Discretionary Section 106 Funds**

1. Title of Project: Chloride and water level monitoring and analysis for use in hydrodynamic model calibration - Phase 1.

2. Organization: Delaware River Basin Commission
P.O. Box 7360
West Trenton, NJ 08628

Project Manager: Thomas J. Fikslin, Ph.D., Manager
Modeling, Monitoring & Assessment Branch
Phone: (609) 883-9500 x253
Fax: (609) 883-9522
Email: Thomas.Fikslin@drbc.state.nj.us

3. Project Purpose:

The modeling staffs of the U.S. Army Corps of Engineers - Philadelphia District (ACOE) and the Commission have completed the first phase of a joint effort to compare the Commission's one-dimensional hydrodynamic and water quality model DYNHYD5/WASP5 with the ACOE's three-dimensional CH3D-Z model. Both of these models have been used in the past to model toxic pollutants including PCBs and the impact of channel deepening and sea level rise on salinity levels, respectively. The objectives of this project were to evaluate the predictive capability of these models for simulating chloride levels in the upper portions of the Delaware Estuary with the ultimate goal of evaluating various reservoir release scenarios. In addition, the Commission staff were interested in using the CH3D-Z model platform as the hydrodynamic portion of the new eutrophication model that is being developed by the Commission under the guidance of a Model Expert Panel.

While this first effort has demonstrated that the models produce reasonably similar predictions, both models were sensitive to both the water level inputs at the ocean boundaries of the models and to the chloride concentrations specified as inputs. This sensitivity indicated both spatial and temporal components, and subsequently the need for additional data analysis of the water level data and additional collection of chloride data and possibly water level depending on the results of an additional data analysis. The University of Delaware's College of Earth, Ocean and the Environment (UDel-CEOE) has expressed interest in collaborating on the analysis and collection of the data.

The objectives of this project are to provide input data for these two models to enable a better calibration and simulation of water level and chloride data throughout the Delaware Estuary and Bay. The improved models will be reviewed by the Model Expert Panel to obtain their recommendation on their use for both salinity simulations and a the hydrodynamic chassis for the new eutrophication model. This model is one of the tasks under the Commission's Nutrient Criteria Plan to determine the need for wasteload allocations for carbonaceous and nitrogenous oxygen-demanding pollutants.

4. Project Tasks:

The project tasks will be conducted in two phases by principal investigators (PIs) associated with the UDel-CEOE. The first phase will involve the analysis of water level data collected by NOAA at Lewes, DE and Cape May, NJ; and the analysis of specific conductivity data (which can be converted to chloride data) collected by instrumentation mounted on the Cape May - Lewes Ferry operated by the Delaware

River and Bay Authority. A pilot study of the feasibility of deploying monitoring equipment including moored sondes/loggers and remotely-operated vehicles (ROVs) or autonomous underwater vehicles (AUVs) operated by scientists at UDel-CEOE. The second phase of the project (not included in this work plan) will involve the collection of real-time data on specific conductivity (i.e., chlorides) and possibly water level data depending on the results of Phase 1. The PIs will be collaborating with the Commission on a proposal to the Delaware Sea Grant that will be submitted in February 2015 that may provide a portion of the funding for the second phase of this project in 2016.

5. Outputs and Deliverables:

The results of this project will provide data to more accurately simulate the concentration of both conservative substances such as chlorides and both conventional and toxic pollutants. These data will also be useful for any model platform that is selected for the Delaware River and Bay.

The deliverables for this project will include data usable for developing inputs to both the one-dimensional DYNHYD5 and three-dimensional CH3D-Z models. A summary report describing the analytical procedures used and the monitoring equipment deployed will also be prepared by UDel-CEOE. The results of this project will be reviewed by the Model Expert Panel as they evaluate the suite of models available that could be used for the new Eutrophication Model of the Delaware Estuary and Bay.

6. Schedule

A schedule for the project is presented in the following table.

	Jan 2015	Feb 2015	Mar 2015	Apr 2015	May 2015	Jun 2015	Jul 2015	Aug 2015	Sep 2015	Oct 2015	Nov 2015	Dec 2015
Task scoping and Preparation of Contract/Agreement	✓	✓	✓									
Evaluation of existing water level data				✓	✓	✓	✓	✓				
Pilot surveys using sensors/ROVs/AUVs						✓	✓	✓	✓			
Data analysis										✓	✓	
Data Analysis and Summary Report Completion												✓

7. Budget

The following budget is for Phase 1 of the project. If awarded, Sea Grant funds will be available starting in February 2016 to perform additional deployments of monitoring equipment based upon the results of the pilot studies (Phase 2). Additional funding may be sought to complete the remainder of the project.

Budget Category	Total
Phase 1	
Contractor Costs – UDel-CEOE	\$55,000
Total	\$55,000

PROGRAM DESCRIPTION – CALENDAR YEAR 2015

The Delaware River is one of the smallest interstate river systems in the U.S., draining 0.4 percent of the U.S. land area. However, it is one of the most intensely used rivers providing about 5 percent of the nation's population with potable and industrial water supply. Water quality of the river is of paramount importance to the nearly 15 million users of this resource. Projects proposed in this application are for funding requested during Calendar Year (CY) 2015 within Federal Fiscal Years (FFY) 2015-16, hereafter referred to as CY2015. Tasks presented in this application are organized by program according to the following categories:

- 1.) DRBC Antidegradation
- 2.) DRBC Criteria Based Programs
- 3.) Aquatic Life
- 4.) Assessment and Management

Work completed using Section 106 grant funding helps in implementing DRBC's Water Monitoring and Assessment Program, as well as the regulatory program which imposes effluent requirements for wastewater discharges. That program focuses on DRBC's water quality standards with a monitoring and assessment strategy that responds to EPA's guidelines concerning the basic elements of a water monitoring program. This helps ensure a common foundation of monitoring, compilation and analysis of data, and reporting to assure that state, interstate, and federal needs are met.

This is an ongoing program, the nature of the scope of work for the use or generation of environmental data is similar to work completed in previous grants in that the following activities were performed (and will continue to be performed) and have an approved QMP:

- Impaired Waters Assessment
- Assessment of monitoring data to establish control point strategy in the Commission's antidegradation program (Special Protection Waters)
- Stage 2 TMDL development and PCB TMDL Implementation
- Continued development of assessment methodology for biological data
- Updates to water quality standards regulations

I. ANTIDEGRADATION PROGRAM

A. Lower Delaware

The activities for this project relate to the section of the non-tidal Delaware River from the Delaware Water Gap to Trenton (miles 209.5 to 134.3), known as the Lower Delaware River.

Task: Collect Additional Water Quality Data at 5 Selected Interstate and Boundary Control Points for EWQ Assessment

In 2008, the Lower Delaware River received permanent designation as Significant Resource Waters under DRBC Special Protection Waters rules. The rules include numerical definitions of Existing Water Quality (EWQ) at 24 Interstate (ICP) and Boundary Control Points (BCP). In CY2009, DRBC began a three year collection of water quality data for comparison with EWQ at each control point specified in DRBC water quality rules. Monthly or bi-weekly water quality data

were collected during the May to September period.

Lower Delaware monitoring will continue at selected sites including new tributary boundary control points. All monitoring will follow the QAPP approved in CY2009, with an addendum that includes new monitoring sites for CY2012-2015.

Output: Readily available data uploaded to WQX

Task: Assess 3 years of monitoring data (CY2009 - 2011) to evaluate measurable change in EWQ

In CY2009, DRBC began a three year collection of water quality data for comparison with EWQ at each control point specified in DRBC water quality rules. Beginning in 2012, an assessment was conducted of the three year data set and a summary report issued containing statistical evaluations of the new data set. In 2015, the completed summary report will be the subject of internal review and policy discussions. Materials will also be prepared for public participation of the assessment results and recommendations.

Output: Complete internal coordination and develop materials for public participation.

Task: Conduct surveys for further calibration of the Lehigh River Water Quality Model

The Lehigh River QUAL2K model has been an important tool in implementing the Commission's Special Protection Waters program. The model was developed based on available data sets and has been updated frequently as more data become available. While point discharge data collection has continued to improve since 2006 through DRBC docket conditions requiring monitoring, ambient surface water data quality lags. Under this activity, DRBC will collect and analyze additional nutrient samples at important model calibration points using high sensitivity analytical methods. These results will enable DRBC to further calibrate the Lehigh River water quality model, and enhance our ability to protect existing water quality. Monitoring results will be uploaded to STORET/WQX and will be available for all potential users. Re-calibrated model will be used to establish docket requirements for selected EWQ parameters, including nutrients.

Output: New data sets uploaded to WQX

B. Scenic Rivers Program

These activities apply to the Upper Delaware Scenic and Recreational River (UPDE) and the Middle Delaware Scenic and Recreational River (DEWA), River Miles 330.7 to 258.4 and 258.4 to 209.5, respectively.

Task: Collect Additional Water Quality Data at 7 Sites for Data Completeness for EWQ Assessment

In CY2006 DRBC and the National Park Service began field collection of samples from May-September to fill information gaps for the definition of EWQ as part of DRBC's Antidegradation Program, and to determine if the water quality of these river segments has measurably changed since 1992. DRBC has cooperated with the National Park Service and the U.S. Geological Survey, to gather sufficient data for site specific EWQ definition at control points. Sample collection will continue in CY2015 at 7 additional sites in DEWA and UPDE, and will include

composite transect sampling at 4 DEWA sites that are typically sampled by wading. These samples will be compared with typical side channel grab samples to improve longitudinal assessment.

Output: Readily accessible data in WQX

Task: Assess 5 Years of Monitoring Data (CY2007-11) to Evaluate Measurable Change in EWQ

In 1992, the Middle and Upper Delaware River received permanent designation as Outstanding and Significant Resource Waters under DRBC Special Protection Waters rules. The rules include reach-wide, numerical definitions of Existing Water Quality (EWQ) for the Upper and Middle Delaware Scenic and Recreational Rivers. In CY2006, DRBC began a multi-year collection of water quality data for comparison with EWQ in these two reaches and to assess the potential to establish BCPs and ICPs for these reaches. In CY2013, statistical summaries were completed for establishment of EWQ at specific BCPs and ICPs for the Middle and Upper Delaware River. In CY 2014, DRBC prepared a report showing observed changes to EWQ. In 2015, the completed summary report will be the subject of internal review and policy discussions. Materials will also be prepared for public participation of the assessment results and recommendations.

Output: Complete internal coordination and develop materials for public participation

C. Brodhead Water Quality Model

Task: Collect and analyze new surface water samples within the Brodhead model domain

The Brodhead QUAL2K model has been an important tool in implementing the Commission's Special Protection Waters program. Since its initial development in 2006, the Brodhead model has been using extensively to protect existing water quality. In 2013 alone, the Brodhead model was used to assess proposed upgrades for major dischargers including Rock Tern and Sanofi-Pasteur. The Brodhead model was originally developed using available data, including data collected by volunteer monitors and Monroe County, with high detection limits resulting in numerous non-detects. Recent sensitivity analyses showed that model calibration could be refined and improved by better defining headwater concentrations and concentrations near confluences of major tributaries. While point discharge data collection has continued to improve since 2006 through DRBC docket conditions requiring monitoring, ambient surface water data quality lags. Under this activity, DRBC will collect and analyze additional nutrient samples at important model calibration points using high sensitivity analytical methods. These results will enable DRBC to upgrade the calibration of the Brodhead model, and enhance our ability to protect existing water quality. Monitoring results will be uploaded to STORET/WQX and will be available for all potential users.

Output: New data sets uploaded to WQX

II. CRITERIA-BASED PROGRAMS

A. PCBs

The Commission will continue the implementation of the Stage 1 and 2 PCB TMDLs in CY2014.

Task: Ongoing Point Source Data Review and Assessment

The Commission coordinates its activities with the States of New Jersey, Delaware, Pennsylvania and EPA Regions II and III for incorporating PCB monitoring and Pollutant Minimization Plan (PMP) development in NPDES permits. Currently, more than eighty-seven dischargers are monitoring and/or developing PMP's. All PCB analyses beginning in 2005 are being undertaken utilizing EPA Method 1668A for all 209 PCB congeners. The benefits of using Method 1668A is a better characterization of effluent, comparability of results between dischargers, reduced analytical uncertainty and better long-term trend analysis. Dischargers continue their submission of monitoring information which is housed in an Access database specifically developed for PCB data. This monitoring information is utilized in evaluating the temporal and spatial trends of PCB loadings and the effectiveness of Pollutant Minimization Plan (PMPs) in reducing PCBs. It will also be used to evaluate options developed for the Action Level proposed in the draft PCB Implementation Strategy.

Output: Readily available data for model input, Pollutant Minimization Plan (PMP) evaluation, and Action Level option evaluation

Task: Completion of Stage 2 TMDL Report and Support to EPA for Establishing TMDLs

The Stage 2 PCB TMDLs for Zones 2-6 of the Delaware Estuary will be developed and documented under this task through the completion of the Stage 2 Report. The Delaware Estuary PCB model has been enhanced since the development of the Stage 1 TMDLs. The revised model was applied to four homologs, tetra, penta, hexa, and hepta-PCBs which typically represent over 90 percent of total PCBs in fish tissue. The revised four homologs models will be used to develop the Stage 2 PCB TMDLs. In addition, equitable allocation scheme, called Equal Effluent Concentration (EEC) allocation scheme, will be used to develop individual Wasteload Allocations (WLAs) for point sources. The Stage 2 PCB TMDL Report is expected to be completed by March 2015.

Output: Stage 2 PCB TMDL Report for Zones 2-6

Task: Collect Ambient Water Samples at 22 Stations in Zones 2-6

The collection of water samples for PCB analysis from Zones 2 through 6 of the mainstem Delaware River and Bay will resume in CY2015. This work, last conducted in 2012, continues the ambient water sampling for PCB begun in 2001 in support of the Stage 1 PCB TMDLs to document changes to ambient water concentrations as the Stage 1 TMDLs are implemented. PCB samples collected at 22 stations will be analyzed for both the particulate and dissolved fractions for comparison of the relative contribution of PCBs in different portions of the tidal Delaware River. The new data will provide the ability to evaluate long-term PCB trends in the tidal Delaware River and Delaware Bay and ultimately the effectiveness of Pollutant Minimization Plan (PMP) measures. Samples will also be analyzed for dioxin/furans, TSS, POC

and DOC at 21 stations.

Output: Readily accessible data for particulate and dissolved PCBs, dioxin / furans, TSS, POC and DOC at 21 stations in WQX

Task: Collect Sediment Samples at 50 Sites in Zones 2-6

This task involves performing PCB analyses on samples collected in the mainstem Delaware River and Bay. Sampling will focus on the tidal river portion of the river and at select locations sampled in 2008 as part of the Delaware Estuary Benthic Inventory (DEBI) project and in 2010 by the DRBC. The data will be used to assess the anticipated decline in the sediment PCB concentrations as the Stage 1 TMDLs continue to be implemented.

Outputs: Readily available sediment PCB data set and a brief report on sample analysis and assessment

B. Toxics

Task: Review and compile recommended toxics criteria for aquatic life and human health protection for Water Quality Management Zone 1

Currently the Commission has not adopted water quality criteria to protect aquatic life and human health from toxic pollutants for the non-tidal portion of the mainstem Delaware River (Water Quality Management Zones 1A through 1E. Existing state water quality criteria (NJ, NY and PA) will be reviewed along with national 304(a) criteria and recently proposed national human health criteria with the goal of harmonizing the state and national criteria to develop a common set of aquatic life and human health criteria for this portion of the mainstem river. This effort will utilize the expertise of the Toxics Criteria Subcommittee of the Commission's Toxics Advisory Committee. These recommended criteria are expected to be presented to the Commission by the chair of the TAC in 2016.

Output: Proposed uniform toxics criteria for Zones 1A through 1E

C. Fish Tissue

Task: Collect Fish Tissue Samples at 4 Sites in Non-tidal River and 7 Sites in the Estuary and Bay

Fish tissue monitoring will be conducted in 2015 at four sites in the non-tidal river and 7 sites in the tidal river and bay. The scope of this task has been expended from previous years by the addition of 2 sites in Delaware Bay. Sampling is currently conducted at 2 to 3 year intervals with the last survey conducted in 2012. Planned sampling includes four fish species: smallmouth bass and white sucker in the non-tidal portion, and channel catfish and white perch in the tidal portion. Species tentatively targeted for collection in the bay are white perch, striped bass and bluefish. Five fish composite samples will be analyzed for data comparability to 1990 through 2012 data. The data will be used along with previously collected data to assess the level of PCBs in fish tissue for a ten year assessment report on the implementation of the PCB TMDLs for the estuary, and for the 2016 DRBC Water Quality Assessment Report. The data will also be used to assess the continuing need for consumption advisories by the states of Delaware and New

Jersey. Collected fish will be analyzed for 209 PCB congeners, dioxins/furans/ chlorinated pesticides, metals including mercury, PBDEs and PFCs.

Output: Readily available data in WQX and provided to States for use in updating fish consumption advisories.

D. Chronic Toxicity

Task: Zone 5 and Tributary surveys

Prior DRBC surveys identified tributaries that warrant further assessment for potential impairment from chronic lethal or sublethal toxicity in the Delaware Estuary.

CY2015 work will focus data collection in Zone 5 and in tidal portions of tributaries in the Delaware Estuary for DRBC Water Quality Zones 2 through 5. The specific objectives of this study are to assess if toxicity is present in surface water samples as measured by laboratory controlled methods for short-term chronic toxicity. These data will supplement and confirm previous toxicity assessments in the Delaware River Basin.

Output: Perform ambient surveys using short-term chronic toxicity tests

E. Copper Criteria Assessment

Task: Special surveys in Zone 5 and 6 for copper using clean metals techniques

In the *2010 Delaware River and Bay Integrated List Water Quality Assessment Report*, DRBC noted that copper concentrations continue to be near water quality criteria with several potential, but inconclusive, exceedances of the marine criteria in the vicinity of Pea Patch Island (RM 60.6). Additional sampling using clean metals techniques in late 2011 and 2012 indicated that exceedances of the marine criterion during the low flow survey. Followup surveys will be performed in 2015 during low flow conditions and extending down into Zone 6 to further evaluate exceedances of the marine criterion. Clean metals sampling and analytical techniques will also be used during these surveys.

Output: Readily accessible clean metals data in WQX, and summary report including recommendation for followup with States

F. Estuary Water Quality Assessment: Metals, Bacteria and Eutrophication

Task: Boat Run Survey (7 Surveys)

The Boat Run Survey of the Estuary provides for samples to be taken at twenty-two locations in the reach extending from the mouth of Delaware Bay to the Delaware River near Trenton, New Jersey. Samples are collected 7 times from April through October and analyzed for metals, bacteria and eutrophication parameters to assess impacts on the designated uses of the estuary. The surveys may be enhanced, upon mutual agreement with DNREC (contractor to the Boat Run Survey), to facilitate special monitoring activities that can arise during the year. Analyses for recreational uses include fecal coliform, *E. coli*, and Enterococcus. Bacterial data are reported

within two weeks on the Commission's website. All data from the Boat Run Survey will be uploaded to EPA's WQX system.

Output: Readily accessible and consistently formatted 2015 data in WQX

Task: Boat Run Additional Parameters to Assess Compliance with Water Quality Criteria

The Boat Run sampling program will be augmented in 2015 with the addition of parameters for which criteria have been adopted, but for which no monitoring has been performed in the past decade. As analytical methods continue to improve, substances which were once impossible to detect in surface waters may now be quantifiable. In CY2015 we will review the parameters for which we have adopted criteria but have no recent data, and select a subset of those parameters for monitoring in CY 2015. Those parameters will be described in an amendment to the Boat Run QAPP.

Output: Readily accessible and consistently formatted 2015 data in WQX

Task: Enhanced Monitoring for Dissolved Oxygen

DRBC will perform additional targeted monitoring for dissolved oxygen in 2015. Monitoring is expected to include longitudinal and vertical profiles, and short term instrument deployments using dissolved oxygen loggers to better characterize DO patterns, dynamics, and incidents of criteria violation.

Output: Collection of Dissolved Oxygen Data

G. Estuary Eutrophication Model

Task: Continue meetings of expert panel to evaluate candidate hydrodynamic and water quality models for Zones 2 – 6

Working with the committee members of the Water Quality Advisory and an expert panel of modelers, various hydrodynamic and eutrophication water quality models in the public domain will be evaluated to select a model that best simulates the nutrient and dissolved oxygen dynamics in the Delaware Estuary.

Output: Recommendations of Expert Panel for eutrophication and hydrodynamic models

Task: Chloride and water level monitoring and analysis for use in hydrodynamic model calibration

A recent joint project between the U.S. Army COE - Philadelphia District and DRBC modeling staff comparing the Commission's one-dimensional DYNHYD5/WASP5 model and the COE's three-dimensional CH3D-Z model identified the need for further refinement of the inputs for both water level (i.e., tidal data) and chlorinity near the mouth of Delaware Bay. This data will improve the calibration of both the hydrodynamic and water quality models of these two platforms. The Commission will work with the University of Delaware's College of Earth, Ocean and Environment on the evaluation of existing data being collected at Lewes, DE and

Cape May, NJ on water level, and deploy sensors to collect spatial and temporal data on salinity across the mouth of Delaware Bay. This data will be used to develop refined model inputs to recalibrate both models.

Output: Improved Calibration of CH3D-Z and DYNHYD5 Models

III. AQUATIC LIFE

A. Macroinvertebrates

Task: Analyze 2010-2012 Macroinvertebrate Samples

Samples collected from the mainstem Delaware River and tributaries in 2010 and 2012 will continue to be processed and analyzed in CY2015, and the data from these samples will be entered into DRBC's database. These data will be analyzed with respect to the interim IBI threshold developed for the Delaware River.

Output: Complete sample analysis, enter and analyze data

B. Primary Producers

Task: Complete Sample Analysis and Progress on Algal IBI Development

In 2005, DRBC began developing survey, analysis, and assessment methods for an annual August-September Delaware River periphyton survey of sites from Hancock, NY to Trenton, NJ. This periphyton survey was expanded in 2006 from 5 sites (2005) to the 25 biomonitoring sites used for macroinvertebrate collections. 2006-2009 baseline data were analyzed in 2010 for criteria development, but it was determined that additional years of data were necessary for statistical analyses. In 2012, the periphyton survey was continued. Samples were collected and submitted to the Academy of Natural Sciences for taxonomic identification of diatoms and soft algae. In CY 2015, data submitted by the Academy will be analyzed and added to the DRBC periphyton database, and evaluated for algal IBI development for integrated assessment.

Output: Complete analysis of 2012 periphyton samples, update database and evaluate algal IBI for Delaware River

C. Nutrients

Task: Nutrient Criteria Plan Key Elements

DRBC completed its Nutrient Criteria Plan in December 2013, outlining the steps involved in developing nutrient criteria or nutrient-related criteria for both the tidal and non-tidal Delaware River. The emphasis for CY2015 will be on continuing implementation of the key elements within that Nutrient Criteria Plan in the manner outlined within the document.

Output: Progress on the Nutrient Criteria Plan Key Elements Prioritized through the Water Quality Advisory Committee (WQAC)

Task: Continue to Manage Nutrient Monitoring Request for Point Source Dischargers

One component of DRBC's Nutrient Criteria Plan which was first identified through its Nutrient Management Subcommittee is the quantification of nutrient loading to the Delaware Estuary from both point sources and non-point sources. DRBC began implementing this requirement in the fall of 2011 with a 2-year requirement for point sources to tidal waters within Zones 5 and 6 of the Delaware Estuary to conduct either monthly or quarterly nutrient monitoring for their facilities. This effort will continue through CY2015, with completion of the sampling from a few large (>1 MGD) discharges and the smaller dischargers (<1.0 MGD), continuing efforts to troubleshoot issues with individual facilities, and to compile the monitoring data into a single database. A special study of Ultimate Oxygen Demand (UOD) at 20 facilities will also be initiated.

Output: Completion of sampling and receipt of data from remaining large (>1 MGD) and smaller flow dischargers

Task: Laboratory experiments to assess the effects of low dissolved oxygen and PCBs on the early life stages of the Atlantic Sturgeon (FFY 2015 Monitoring Initiative)

See separate Monitoring Initiative Work Plan

Output: Study report by contractor

IV. ASSESSMENT AND MANAGEMENT

A. Regulations

Task: Recommended revisions to water quality regulations for Temperature

Meeting(s) will be held with the WQAC regarding revisions to DRBC mainstem temperature regulations. The recommendations of the WQAC for adoption of revised Delaware River temperature criteria will be forwarded to the Commissioners for their consideration.

Output: Recommendations to Commissioners on revised water quality regulations for temperature

Task: Recommended revisions to water quality regulations for Ammonia

Meeting(s) with the WQAC will include proposed revisions to DRBC ammonia criteria, based on EPA published final criteria. The recommendations of the WQAC will be forwarded to the Commissioners for their consideration.

Output: Recommendations to Commissioners on revised water quality regulations for ammonia

Task: Update designated use for aquatic life for Zones 3, 4 and part of 5 based on existing use and identify dissolved oxygen criteria associated with that use

Commission staff will coordinate with state and federal fisheries scientists on the assessment completed in 2014 regarding evidence for successful reproduction of aquatic species in Zones 3, 4

and portions of 5 of the Delaware River Estuary. Staff will also work with the Water Quality Advisory Committee to review options for upgrading the designated uses of Zones 3, 4 and portions of 5 of the Delaware River Estuary based upon this assessment.

Output: Complete coordination with fishery scientists and prepare options to update the uses for discussion by the WQAC

Task: Develop site specific water quality targets for UPDE and DEWA control points

Using tables of water quality targets at ICP and BCP locations in the Upper and Middle Delaware River developed in CY2014, staff will develop policy options for SPW implementation in Upper and Middle Delaware reaches and complete internal discussions of the options.

Output: Develop policy alternatives and complete internal coordination

B. Assessment

Task: Annual WQX Data Entry and Management of CY2013-14 Non-Tidal Data

DRBC will continue to enter and upload Scenic Rivers Monitoring Program data into the EPA's WQX system via the NJ Department of Environmental Protection (NJDEP) or NJ Department of Health (NJDOH) portals.

Output: Readily accessible and consistently formatted data in WQX through NJDEP or NJDOH nodes

Task: Continue to work with NJDEP on WQDE/WQX upload of 2001-2012 biological data (macroinvertebrates, algae, habitat)

DRBC will continue upload of Delaware River Biomonitoring Program data into the EPA's WQX system via the NJDEP WQDE portal. The CY2001-2012 macroinvertebrate, periphyton, habitat, and geomorphology data will be entered by December 2015.

Output: Readily accessible and consistently formatted 2012-2013 data in WQX

Task: Annual WQX Data Entry and Management of 2015 Estuary Water Quality Data

The 2015 estuary data, when collected, will be entered into the WQX system by the Commission's contractor (Delaware DNREC) within 90 days of sample collection.

Output: Readily accessible and consistently formatted 2015 data in WQX

Task: Methodology for 2016 Water Quality Assessment Report (Section 305(b) report)

DRBC will develop methodology for preparation of the 2016 Delaware River and Bay Water Quality Assessment Report. The methodology will be published on DRBC's web site and comments received will be used in finalizing the methodology.

Output: Public notice of proposed methodology soliciting comments

C. Coordination and Cooperation

Task: Convene Advisory Committee Meetings

In CY2015, DRBC will continue to convene meetings of its Water Quality, Toxics and Monitoring Coordination advisory committees as needed to obtain stakeholder input on such issues as water quality regulations and criteria changes, monitoring program needs and activities, and toxics issues.

Output: Strategies for improved interstate consistency

D. Management

Task: Management of Wastewater Docket Database

Staff will continue to update the DRBC integrated database by entering wastewater docket data into the database and performing QA/QC on the data. Wastewater docket data will be used in the DRBC water quality management program.

Output: Updated integrated database

Task: Grant and Infrastructure Management

The DRBC will manage internal and external resources to achieve the most effective water quality program using Section 106 funding. This task includes management of resources, scheduling of field activities, coordination with cooperating agencies, enhancement of water quality infrastructure, and reporting on progress. DRBC will work with EPA to achieve a cost-effective water quality management program.

Outputs: A 106 grant application and reporting

Task: Joint Evaluation

The CY2015 work output for this task will be a meeting or conference call with EPA Region III in the fall of 2015 and documentation of the call.

Output: Meeting or conference call with EPA Region 3 and documentation

**State and Local Governments
Indirect Cost Negotiation Agreement**

EIN: 23-1605892

Organization:

Delaware River Basin Commission
P.O. Box 7360
West Trenton, NJ 08628-0360

Date: April 21, 2014

Report No(s): 14-A-0641(13F)
14-A-0642(15P)

Filing Ref.:
Last Negotiation Agreement
dated March 5, 2013

The indirect cost rate(s) contained herein are for use on grants, contracts, and other agreements with the Federal Government to which 2 CFR 225 (OMB Circular A-87) applies, subject to the limitations in Section II.A. of this agreement. The rate(s) were negotiated by the U.S. Department of the Interior, Interior Business Center, and the subject organization in accordance with the authority contained in 2 CFR 225.

Section I: Rate(s)

Type	Effective Period		Rate*	Locations	Applicable To
	From	To			
Final	07/01/12	06/30/13	71.79%	All	All Programs
Provisional	07/01/14	06/30/15	71.79%	All	All Programs

*Base: Total direct salaries and wages, excluding fringe benefits.

Treatment of fringe benefits: Fringe benefits applicable to direct salaries and wages are treated as direct costs; fringe benefits applicable to indirect salaries and wages are treated as indirect costs.

Section II: General

Page 1 of 3

A. Limitations: Use of the rate(s) contained in this agreement is subject to any applicable statutory limitations. Acceptance of the rate(s) agreed to herein is predicated upon these conditions: (1) no costs other than those incurred by the subject organization were included in its indirect cost rate proposal, (2) all such costs are the legal obligations of the grantee/contractor, (3) similar types of costs have been accorded consistent treatment, and (4) the same costs that have been treated as indirect costs have not been claimed as direct costs (for example, supplies can be charged directly to a program or activity as long as these costs are not part of the supply costs included in the indirect cost pool for central administration).

B. Audit: All costs (direct and indirect, federal and non-federal) are subject to audit. Adjustments to amounts resulting from audit of the cost allocation plan or indirect cost rate proposal upon which the negotiation of this agreement was based will be compensated for in a subsequent negotiation.

C. Changes: The rate(s) contained in this agreement are based on the organizational structure and the accounting system in effect at the time the proposal was submitted. Changes in organizational structure, or changes in the method of accounting for costs which affect the amount of reimbursement resulting from use of the rate(s) in this agreement, require the prior

approval of the responsible negotiation agency. Failure to obtain such approval may result in subsequent audit disallowance.

D. Rate Type:

1. Fixed Carryforward Rate: The fixed carryforward rate is based on an estimate of the costs that will be incurred during the period for which the rate applies. When the actual costs for such periods have been determined, an adjustment will be made to the rate for future periods, if necessary, to compensate for the difference between the costs used to establish the fixed rate and the actual costs.

2. Provisional/Final Rates: Within 6 months after year end, the final rate must be submitted based on actual costs. Billings and charges to contracts and grants must be adjusted if the final rate varies from the provisional rate. If the final rate is greater than the provisional rate and there are no funds available to cover the additional indirect costs, the organization may not recover all indirect costs. Conversely, if the final rate is less than the provisional rate, the organization will be required to pay back the difference to the funding agency.

3. Predetermined Rate: The predetermined rate contained in this agreement is based on estimated costs which will be incurred during the period for which the rate applies and is normally not subject to subsequent carry-forward adjustments. However, if material changes occur in the grantee/contractor's cost structure, adjustments to the rate may be necessary to compensate for the effects of such changes.

E. Agency Notification: Copies of this document may be provided to other federal offices as a means of notifying them of the agreement contained herein.

F. Record Keeping: Organizations must maintain accounting records that demonstrate that each type of cost has been treated consistently either as a direct cost or an indirect cost. Records pertaining to the costs of program administration, such as salaries, travel, and related costs, should be kept on an annual basis.

G. Reimbursement Ceilings: Grantee/contractor program agreements providing for ceilings on indirect cost rate(s) or reimbursement amounts are subject to the ceilings stipulated in the contract or grant agreements. If the ceiling rate is higher than the negotiated rate in Section I of this agreement, the negotiated rate will be used to determine the maximum allowable indirect cost.

H. Use of Other Rate(s): If any federal programs are reimbursing indirect costs to this grantee/contractor by a measure other than the approved rate(s) in this agreement, the grantee/contractor should credit such costs to the affected programs, and the approved rate should be used to identify the maximum amount of indirect cost allocable to these programs.

I. Central Service Costs: Where central service costs are estimated for the calculation of indirect cost rate(s), adjustments will be made to reflect the difference between provisional and final amounts.

J. Other:

1. The purpose of an indirect cost rate is to facilitate the allocation and billing of indirect costs. Approval of the indirect cost rate does not mean

that an organization can recover more than the actual costs of a particular program or activity.

2. Programs received or initiated by the organization subsequent to the negotiation of this agreement are subject to the approved indirect cost rate if the programs receive administrative support from the indirect cost pool. It should be noted that this could result in an adjustment to a future rate.

3. New indirect cost proposals are necessary to obtain approved indirect cost rate(s) for future fiscal or calendar years. The proposals are due in our office 6 months prior to the beginning of the year to which the proposed rate(s) will apply.

Section III: Acceptance

Listed below are the signatures of acceptance for this agreement:

By the State & Local Government:

By the Cognizant Federal Government
Agency:

Delaware River Basin Commission
State/Local Government

U.S. Environmental Protection Agency
Agency

Signature
Richard C. Gore
Name (Type or Print)

Signature
Deborah A. Moberly
Name

Chief Administrative Officer
Title

Office Chief
Office of Indirect Cost Services
Title

4/17/14
Date

U.S. Department of the Interior
Interior Business Center
Agency
APR 21 2014

Date
Negotiated by Te Lam-Vi
Telephone (916) 566-7109

Calendar Year 2015 -- Section 106 Grant Application
January 1, 2015 - December 31, 2015 Program Activities

Strategic Plan Goal	Strategic Plan Objective	Program	Project	Outcome	Task	Output(s)	DRBC Responsibility	Deadline
Protecting America's Waters	Protect & Restore Watersheds and Aquatic Ecosystems	I. DRBC Antidegradation	Lower Delaware	Maintain/Improve Existing Water Quality	Collect additional water quality data at 5 TCEs and BCPs for EWQ assessment	Readily available data uploaded to WQX	R. Limbeck	December 2015
					Report of Assessment of monitoring data (CY 2009 - 2011) for evaluate measurable change in EWQ	Complete internal coordination and develop materials for public participation	R. Limbeck	December 2015
					Conduct surveys for further calibration of the Lehigh River Water Quality Model	New data sets uploaded to WQX	N. Suk	December 2015
			Scenic Rivers	Maintain/Improve Existing Water Quality	Collect Additional Water Quality Data at 7 Sites for Data Completeness for EWQ Assessment	Readily available data in WQX	R. Limbeck	December 2015
					Assess 5 Years of Monitoring Data (CY2007-11) to Evaluate Measurable Change in EWQ	Complete internal coordination and develop materials for public participation	R. Limbeck	December 2015
Protect Human Health	II. DRBC Criteria-Based Programs	PCBs	Brookhead WQ Model	New data for revised model calibration	Collect and analyze new surface water samples within the Brookhead model domain	New data sets uploaded to WQX	J. Yagelco	December 2015
				Implementation of Stage 1 & 2 TMDLs (Zones 2-6)	Ongoing Point Source Data Review and Assessment	Readily available data for model input PMP evaluation, and action level option evaluation	G. Cavallo	December 2015
				Progress on TMDLs	Completion of Stage 2 TMDL Report and support to EPA for establishing TMDLs	Stage 2 PCB TMDL Report for Zones 2 - 6	N. Suk / T. Fiksin	March 2015
			Toxics		Collect ambient water samples at 22 stations in Zones 2 - 6	Readily accessible data for particulate and dissolved PCBs, dioxin / furans, TSS, POC and DOC at 21 stations in WQX	G. Cavallo/N. Suk	December 2015
					Collect sediment samples at 50 sites in Zones 2 - 6	Readily available sediment PCB data set and a brief report on sample analysis and assessment	G. Cavallo	December 2015
				Draft uniform water quality criteria for toxics for Zone 1 (non-tidal river)	Review and compile recommended toxics criteria for aquatic life and human health protection for Water Quality Management Zone 1	Proposed uniform toxics criteria for Zones 1A through 1E	R. MacGillivray	December 2015
			Fish Tissue	Maintain trend assessment	Collect fish tissue samples at 4 sites in non-tidal river and 7 sites in the estuary and bay	Readily available data in WQX and provided to States for use in updating fish consumption advisories	T. Fiksin	December 2015

Calendar Year 2015 -- Section 106 Grant Application
January 1, 2016 - December 31, 2015 Program Activities

Strategic Plan Goal	Strategic Plan Objective	Program	Project	Outcome	Task	Output(s)	DRBC Responsibility	Deadline			
Protecting America's Waters	Protect & Restore Watersheds and Aquatic Ecosystems		Chronic Toxicity	303(d) Listings	Zone 5 and tributary surveys	Perform ambient surveys using short-term chronic toxicity tests	R. MacGillivray	December 2015			
			Copper Criteria Assessment	Protection of aquatic life from the metal copper.	Special surveys in Zone 5 and 6 for copper using clean metals techniques	Readily accessible clean metals data in WQX, and summary report including recommendation for followup with States	R. MacGillivray	December 2015			
			Estuary Water Quality Assessment - Metals, Bacteria and Eutrophication	Assessment of Bacteria, eutrophication, metals, VOAs and conventional parameters (i.e., nutrients, dissolved oxygen, chlorides)	Boat Run Survey (7 Surveys)	Readily-accessible and consistently formatted 2015 data in WQX	J. Yagacic	December 2015			
					Boat run additional parameters to assess compliance with water quality criteria	Readily-accessible and consistently formatted 2015 data in WQX	J. Yagacic	December 2015			
			Estuary Eutrophication Model	Updated hydrodynamic and water quality models for Zones 2 - 6	Enhanced monitoring for dissolved oxygen	Collection of DO data	J. Yagacic	December 2015			
					Continue meetings of expert panel to evaluate candidate hydrodynamic and water quality models for Zones 2 - 6	Recommendations of Expert Panel for eutrophication and hydrodynamic models	N. Suk	December 2015			
					Chloride and water level monitoring and analysis for use in hydrodynamic model calibration	Improved calibration of CH3D-Z and DYNHYD5 models	N. Suk	December 2015			
			III. Aquatic Life								
					Macroinvertebrates	Monitor macroinvertebrate community for water quality and aquatic life protection	Analyze 2010-2012 macroinvertebrate samples	Complete sample analysis, enter and analyze data	E. Silldorf	December 2015	
		Primary Producers	Maintain a healthy periphyton community for water quality and aquatic life protection	Complete Sample Analysis and Progress on Algal BI Development	Complete analysis of 2012 periphyton samples, update database and evaluate algal BI for Delaware River	R. Limbeck	December 2015				
		Nutrients	Implementation of nutrient criteria plan	Nutrient criteria plan key elements	Progress on the Nutrient Criteria Plan key elements prioritized through the WQAC	J. Yagacic / E. Silldorf	December 2015				
				Continue to manage nutrient monitoring request for point source dischargers	Completion of sampling and receipt of data from remaining large (>1 MGD) and smaller flow dischargers	E. Silldorf	Ongoing				
				Laboratory experiments to assess the effects of low dissolved oxygen and PCBs on the early life stages of the Atlantic Sturgeon	Study report by contractor	T. Fiskin/Erik Silldorf	December 2015				
IV. Assessment & Management											
		Regulations	Updated water quality criteria for use by Commission and states	Recommended revisions to WQ regulations for temperature	Recommendations to Commissioners on revised water quality regulations for temperature	J. Yagacic	December 2015				
				Recommended revisions to WQ regulations for ammonia	Recommendations to Commissioners on revised water quality regulations for ammonia	T. Fiskin	June 2015				
				Update designated use for aquatic life for Zones 3, 4 and part of 5 based on existing use and identify dissolved oxygen criteria associated with that use	Complete coordination with fishery scientists and prepare options to update the uses for discussion by the WQAC	E. Silldorf	December 2015				
			Special Protection Waters update	Develop site-specific water quality targets for UPDE and DEWA control points	Develop policy alternatives and complete internal coordination	R. Limbeck	June 2015				

Calendar Year 2015 -- Section 106 Grant Application
January 1, 2015 - December 31, 2015 Program Activities

Strategic Plan Goal	Strategic Plan Objective	Program	Project	Outcome	Task	Output(s)	DRBC Responsibility	Deadline
Protecting America's Waters	Protect & Restore Watersheds and Aquatic Ecosystems		Assessment	Identification of Water Quality Issues and Concerns	Annual WQX Data Entry and Management of CY2013-14 Non-Tidal Data	Readily accessible and consistently formatted data in WQX through NJDEP or NJDOH nodes	R. Linbeck	December 2015
					Continue to work with NJDEP on WQDE/WQX upload of 2001-2012 biological data (macroinvertebrates, algae, habitat)	Readily-accessible and consistently formatted 2001-2013 data in WQX	R. Linbeck	December 2015
					Annual WQX data entry and management of 2015 Estuary Water Quality Data	Readily-accessible and consistently formatted 2015 data in WQX	J. Yagovic	December 2015
					Methodology for 2016 Water Quality Assessment Report (Section 305(b) report)	Public notice of proposed methodology soliciting comments	J. Yagovic	August 2015
			Coordination & Cooperation	Greater consistency in basin-wide resource management, reduced duplication of effort	Convene advisory committee meetings	Strategies for improved interstate consistency	Liaisons	Ongoing
			Management	Effective management of wastewater discharges	Management of wastewater/water docket database	Updated integrated database	K. Najjar	Ongoing
				Effective management of 106 Resources	Grant and infrastructure management	106 grant application and reporting	K. Najjar	Ongoing
					Joint Evaluation	Meeting or conference call with EPA Region 3 and documentation	K. Najjar	Sept 2015

106 Grant
Reconciliation to Budget Summary
DRBC CY 2015 106 Grant Application
Jan. 1, 2015 - Dec. 31, 2015

Expense Category

a. Personnel

<i>Position</i>	<i>Staff Years</i>	<i>Annual Salary</i>	<i>Estimated Cost</i>
Branch Managers	0.1500	115,000	17,250
Engineers & Modelers	0.5000	75,000	37,500
Scientists	1.5000	75,000	112,500
Secretary	0.1000	35,000	3,500
Seasonal Staff	1.60921	20,000	32,184

Subtotal Personnel Costs 202,934

b. Fringe Charges

Fringe cost multiplier = 0.600 X Personnel Cost 121,761

c. Travel

0

d. Equipment

(e.g., DO meter)

6,000

e. Supplies

(e.g., lab supplies, sampling equip, instrumentation)

17,543

f. Contractual

Outside Contractors (see details below)

269,483

Subtotal Contractual Costs 269,483

g. Construction

0

h. Other -- Interagency

Interagency Contractors (see details below)

308,133

Subtotal Interagency Contractual Costs 308,133

i. Total Direct Charges

925,854

j. Indirect Charges

Indirect cost multiplier = 0.7179 X Personnel Cost

145,686

k. Total costs

1,071,540

OUTSIDE CONTRACTORS

Task	Contractor	Amount
Fish tissue analysis	AXYS	90000
Lab analysis for chronic toxicity	AAT-toxicity	18983
PCB water sample analysis	Contractor TBD	67500
PCB sediment sample analysis	Contractor TBD/ANS Boat	55000
Analysis of 2010-2012 macroinv samples	Contractor TBD	6000
DO/PCB Impact on Atlantic Sturgeon	NYU	32,000
	TOTAL	269483

AXYS = AXYS Analytical Services Ltd

AAT = American Aquatic Testing

PWD = Philadelphia Water Dept

INTERAGENCY CONTRACTORS

Task	Contractor	Amount
Annual Boat Run: Water quality lab analysis for Delaware Estuary samples	DNREC	145293
Boat Run for chronic toxicity	DNREC	800
Analysis of additional parameters to assess compliance with water quality criteria	DNREC/NJDOH	32000
Analysis of data at L Del 5 ICPs & BCPs	NJDOH	21500
Analysis of surveys for Lehigh River model	NJDOH	7872
Analysis of data for EWQ in UPDE DEWA	NJDOH	26000
Analysis of surveys for Brodhead River model	NJDOH	19668
Chloride and water level monitoring for model calibr	Univ of Delaware	55000
	TOTAL	308133

DNREC = DE Dept Natural Resources & Env Control

NJDOH = NJ Dept of Health Lab

NYU = NY University

ANS = Academy of Natural Sciences

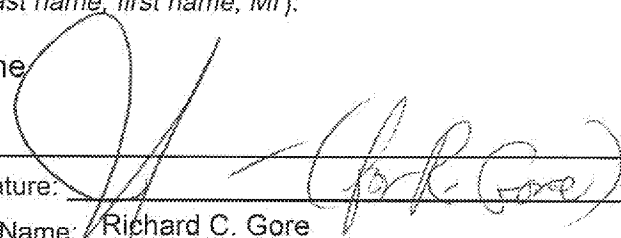
DISCLOSURE OF LOBBYING ACTIVITIES

Complete this form to disclose lobbying activities pursuant to 31 U.S.C. 1352

Approved by OMB

0348-0046

(See reverse for public burden disclosure.)

1. Type of Federal Action: <input checked="" type="checkbox"/> a. contract <input type="checkbox"/> b. grant <input type="checkbox"/> c. cooperative agreement <input type="checkbox"/> d. loan <input type="checkbox"/> e. loan guarantee <input type="checkbox"/> f. loan insurance		2. Status of Federal Action: <input checked="" type="checkbox"/> a. bid/offer/application <input type="checkbox"/> b. initial award <input type="checkbox"/> c. post-award		3. Report Type: <input checked="" type="checkbox"/> a. initial filing <input type="checkbox"/> b. material change For Material Change Only: year _____ quarter _____ date of last report _____	
4. Name and Address of Reporting Entity: <input checked="" type="checkbox"/> Prime <input type="checkbox"/> Subawardee Tier _____, if known: Delaware River Basin Commission P.O. Box 7360 West Trenton, NJ 08628-0360 Congressional District, if known:			5. If Reporting Entity in No. 4 is a Subawardee, Enter Name and Address of Prime: N/A Congressional District, if known:		
6. Federal Department/Agency: U.S. EPA, Region III Water Protection Division			7. Federal Program Name/Description: CFDA Number, if applicable: 66419		
8. Federal Action Number, if known: None			9. Award Amount, if known: \$ None		
10. a. Name and Address of Lobbying Registrant (if individual, last name, first name, MI): None			b. Individuals Performing Services (including address if different from No. 10a) (last name, first name, MI): None		
11. action requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when this transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.			Signature:  Print Name: Richard C. Gore Title: Chief Administrative Officer Telephone No.: 609--883-9500 x-201 Date: 12/30/14		
Federal Use Only:					Authorized for Local Reproduction Standard Form LLL (Rev. 4/2012)



EPA Project Control Number

CERTIFICATION REGARDING LOBBYING

CERTIFICATION FOR CONTRACTS, GRANTS, LOANS AND COOPERATIVE AGREEMENTS

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

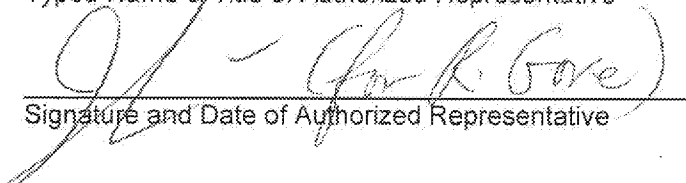
(3) The undersigned shall require that the language of this certification be included in the award documents for all sub-awards at all tiers (including sub-contracts, sub-grants, and contracts under grants, loans, and cooperative agreements) and that all sub-recipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31 U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

Richard Gore, Chief Administrative Officer

Typed Name & Title of Authorized Representative

Signature and Date of Authorized Representative

 12/30/14

The public reporting and recordkeeping burden for this collection of information is estimated to average 15 minutes per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.

ASSURANCES - NON-CONSTRUCTION PROGRAMS

Public reporting burden for this collection of information is estimated to average 15 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0040), Washington, DC 20503.

PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET. SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.

NOTE: Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the awarding agency. Further, certain Federal awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant, I certify that the applicant:

- | | |
|--|---|
| <ol style="list-style-type: none"> 1. Has the legal authority to apply for Federal assistance and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project cost) to ensure proper planning, management and completion of the project described in this application. 2. Will give the awarding agency, the Comptroller General of the United States and, if appropriate, the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the award; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives. 3. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain. 4. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain. 5. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. 4728-4763) relating to prescribed standards for merit systems for programs funded under one of the 19 statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F). 6. Will comply with all Federal statutes relating to nondiscrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. 1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), which prohibits discrimination on the | <ol style="list-style-type: none"> basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. 6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) 523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. 290 dd-3 and 290 ee-3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VII of the Civil Rights Act of 1968 (42 U.S.C. 3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and (j) the requirements of any other nondiscrimination statute(s) which may apply to the application. 7. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal or federally-assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases. 8. Will comply, as applicable, with provisions of the Hatch Act (5 U.S.C. 1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds. |
|--|---|

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Standard Form 424B (Rev 4-2012)

9. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. 276a to 276a-7), the Copeland Act (40 U.S.C. 276c and 18 U.S.C. 874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. 327-333), regarding labor standards for federally-assisted construction subagreement.

10. Will comply, if applicable, with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.

11. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in flood plains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. 1451 et seq.); (f) conformity of Federal actions to State (Clean Air) Implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. 7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended (P.L. 93-523); and, (h) protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-205).

12. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. 1271 et seq.) Related to protecting components or potential components of the national wild and scenic rivers system.

13. Will assist the awarding agency in assuring compliance will Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. 470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. 469a-1 et seq.).

14. Will comply with P.L. 93-348 regarding the protection of human subjects involved in research, development, and related activities supported by this award of assistance.

15. Will comply with the Laboratory Animal Welfare Act of 1966 (P.L. 89-544, as amended, 7 U.S.C. 2131 et seq.) Pertaining to the care, handling, and treatment of warm blooded animals held for research, teaching, or other activities supported by this award of assistance.

16. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. 4801 et seq.) Which prohibits the use of lead-based paint in construction or rehabilitation of residence structures.

17. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-133, "Audits of States, Local Governments, and Non-Profit Organizations."

18. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations, and policies governing this program.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL

TITLE

Chief Administrative Officer

APPLICANT ORGANIZATION

Delaware River Basin Commission

DATE SUBMITTED

12/30/14



U.S. ENVIRONMENTAL PROTECTION AGENCY
Washington, DC 20460

**Preward Compliance Review Report for
All Applicants and Recipients Requesting EPA Financial Assistance**

Note: Read instructions on other side before completing form.

I.	Applicant/Recipient (Name, Address, State, Zip Code). Delaware River Basin Commission, P.O. Box 7360, West Trenton, NJ 08628	DUNS No. 06-904-6779
II.	Is the applicant currently receiving EPA assistance? Yes	
III.	List all civil rights lawsuits and administrative complaints pending against the applicant/recipient that allege discrimination based on race, color, national origin, sex, age, or disability. (Do not include employment complaints not covered by 40 C.F.R. Parts 5 and 7. See instructions on reverse side.) None	
IV.	List all civil rights lawsuits and administrative complaints decided against the applicant/recipient within the last year that allege discrimination based on race, color, national origin, sex, age, or disability and enclose a copy of all decisions. Please describe all corrective action taken. (Do not include employment complaints not covered by 40 C.F.R. Parts 5 and 7. See instructions on reverse side.) None	
V.	List all civil rights compliance reviews of the applicant/recipient conducted by any agency within the last two years and enclose a copy of the review and any decisions, orders, or agreements based on the review. Please describe any corrective action taken. (40 C.F.R. § 7.80(c)(3))	
VI.	Is the applicant requesting EPA assistance for new construction? If no, proceed to VII; if yes, answer (a) and/or (b) below. Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> a. If the grant is for new construction, will all new facilities or alterations to existing facilities be designed and constructed to be readily accessible to and usable by persons with disabilities? If yes, proceed to VII; if no, proceed to VI(b). Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> b. If the grant is for new construction and the new facilities or alterations to existing facilities will not be readily accessible to and usable by persons with disabilities, explain how a regulatory exception (40 C.F.R. § 7.70) applies. Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/>	
VII.	Does the applicant/recipient provide initial and continuing notice that it does not discriminate on the basis of race, color, national origin, sex, age, or disability in its programs or activities? (40 C.F.R. § 5.140 and § 7.95) Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> a. Do the methods of notice accommodate those with impaired vision or hearing? Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> b. Is the notice posted in a prominent place in the applicant's offices or facilities or, for education programs and activities, in appropriate periodicals and other written communications? Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> c. Does the notice identify a designated civil rights coordinator? Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/>	
VIII.	Does the applicant/recipient maintain demographic data on the race, color, national origin, sex, age, or handicap of the population it serves? (40 C.F.R. § 7.85(a)) No	
IX.	Does the applicant/recipient have a policy/procedure for providing access to services for persons with limited English proficiency? (40 C.F.R. Part 7, E.O. 13166) No	
X.	If the applicant/recipient is an education program or activity, or has 15 or more employees, has it designated an employee to coordinate its compliance with 40 C.F.R. Parts 5 and 7? Provide the name, title, position, mailing address, e-mail address, fax number, and telephone number of the designated coordinator. N/A	
XI.	If the applicant/recipient is an education program or activity, or has 15 or more employees, has it adopted grievance procedures that assure the prompt and fair resolution of complaints that allege a violation of 40 C.F.R. Parts 5 and 7? Provide a legal citation or Internet address for, or a copy of, the procedures. N/A	
For the Applicant/Recipient		
I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law. I assure that I will fully comply with all applicable civil rights statutes and EPA regulations.		
A. Signature of Authorized Official	B. Title of Authorized Official	C. Date
	Chief Administrative Officer	12/30/14
For the U.S. Environmental Protection Agency		
I have reviewed the information provided by the applicant/recipient and hereby certify that the applicant/recipient has submitted all preaward compliance information required by 40 C.F.R. Parts 5 and 7; that based on the information submitted, this application satisfies the preaward provisions of 40 C.F.R. Parts 5 and 7; and that the applicant has given assurance that it will fully comply with all applicable civil rights statutes and EPA regulations.		
A. Signature of Authorized EPA Official	B. Title of Authorized EPA Official	C. Date
<i>See * note on reverse side</i>		



U.S. ENVIRONMENTAL PROTECTION AGENCY
Washington, DC 20460
KEY CONTACTS FORM

Authorized Representative: *Original awards and amendments will be sent to this individual for review and acceptance, unless otherwise indicated.*

Name: Richard C. Gore
 Title: Chief Administrative Officer
 Complete Address: Delaware River Basin Commission, 25 State Police Drive, P.O. Box 7360
 West Trenton, NJ 08628-0360
 Phone Number: 609-883-9500 x-201

Payee: *Individual authorized to accept payments.*

Name: Richard C. Gore
 Title: Chief Administrative Officer
 Mail Address: Delaware River Basin Commission, P.O. Box 7360, West Trenton, NJ 08628-0360
 Phone Number: 609-883-9500 x-201

Administrative Contact: *Individual from Sponsored Program Office to contact concerning administrative matters (i.e., indirect cost rate computation, rebudgeting requests etc.)*

Name: Richard C. Gore
 Title: Chief Administrative Officer
 Mailing Address: Delaware River Basin Commission, 25 State Police Drive
 West Trenton, NJ 08628-0360
 Phone Number: 609-883-9500 x-201
 FAX Number: 609-883-9522
 E-Mail Address: richard.gore@drbc.state.nj.us

Principal Investigator: *Individual responsible for the technical completion of the proposed work.*

Name: Kenneth F. Najjar
 Title: Planning and Information Technology Branch Manager
 Mailing Address: Delaware River Basin Commission, 25 State Police Drive
 West Trenton, NJ 08628-0360
 Phone Number: 609-883-9500 x-256
 FAX Number: 609-883-9522
 E-Mail Address: kenneth.najjar@drbc.state.nj.us
 Web URL: <http://www.state.nj.us/drbc>

The public reporting and recordkeeping burden for this collection of information is estimated to average 30 minutes per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.